

Claims:

1. A portable guide device for severing a portion of a workpiece comprising:
 - a guide bar having a longitudinal dimension relatively longer than the preselected portion of the workpiece to be severed;
 - a first clamp assembly secured to a first end of the workpiece;
 - 5 a second clamp assembly secured to an opposing second end of the workpiece;
 - means for aligning said first and second clamp assemblies;
 - means for securing said guide bar to said first and second clamp assemblies;
 - means for continuously engaging a severing tool with a longitudinal side surface of said guide bar beyond the first and second ends of the workpiece; and
 - 10 means for maintaining the relative position of the workpiece and the severed portion upon completing the severing operation.
2. The device of claim 1 wherein said guide bar further includes a plurality of planar surfaces that provide a rectangular cross section.
3. The device of claim 1 wherein said guide bar further includes a slot centered along the longitudinal axis of a bottom surface of said guide bar.
- 15 4. The device of claim 1 wherein said guide bar further includes a plurality of slots centered along the longitudinal axis of a bottom surface of said guide bar.
5. The device of claim 1 wherein said first and second clamp assemblies further include a protection wall to prevent the workpiece from engaging nuts affixed to a clamp frame and clamp plates riveted to a top portion of a clamp screw.
- 20 6. The device of claim 1 wherein said aligning means further includes a template dimensioned to position T-bolts of said first and second clamp assemblies a predetermined distance from a line of cut.
7. The device of claim 6 wherein said predetermined distance corresponds to the distance between said T-bolts and the severing tool when said guide bar is secured to said first and second clamp assemblies and the severing tool engages a side surface of said guide bar.
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8. The device of claim 6 wherein said template further includes a notch configured to removably and snugly receive said T-bolts.
9. The device of claim 1 wherein said guide bar securing means further includes a rectangular top portion of said T-bolts positioned to insert through said slot in said bottom surface of said guide bar, said top portion subsequently being rotated inside said guide bar and urged into forcible engagement with an inner portion of said bottom surface via an eccentric tensioning lever thereby securing said guide bar to said first and second clamp assemblies.
10. The device of claim 1 wherein said guide bar further includes means for securing the severing tool to said guide bar.
11. The device of claim 10 wherein said severing tool securing means further includes a lateral guide having a first portion removably positioned upon said guide bar, and a second portion removably joined to a receptacle portion of the severing tool.
12. The device of claim 1 wherein said continuous engaging means further includes a notch portion in a frame portion of said first and second clamp assemblies, said notch portions being substantially centered in said frame portions, said notch portions being dimensioned to allow the severing tool to pass through said notches without engaging said first and second clamp assemblies.
13. The device of claim 12 wherein said continuous engaging means further includes positioning said longitudinal side surface of said guide bar proximate to said notches to direct the severing tool through said notches when the severing tool is urged across the workpiece while continuously engaging said side surface of said guide bar.
14. The device of claim 1 wherein said position maintaining means further includes

opposing clamp screws inserted through frame portions of said first and second clamp assemblies on either side of notch portions in said frame portions, and angle portions of said frame portions dimensioned to engage corresponding edge portions of the workpiece when said clamp screws are tightened.

- 5 15. The device of claim 1 wherein said guide bar securing means further includes a T-bolt having a threaded end portion with opposing sides machined flat to fit snugly in a slot of a wedge and a correspondingly configured washer, said threaded end receiving a nut to secure the relative position of said T-bolt in relation to said first and second clamp assemblies, said wedge, washer and nut cooperating to allow said T-bolt to secure said
- 10 guide bar to said clamp assemblies when said wedge is moved in a predetermined direction.

16. A guide device for a machining tool operating upon a workpiece comprising:
- a guide bar extending beyond corresponding edges of a preselected portion of the workpiece;
- 15 means for securing said guide bar to the workpiece;
- means for positioning said guide bar upon the workpiece to direct the machine tool along a predetermined excursion;
- means for continuously engaging the machine tool with said guide bar beyond the corresponding edges of the preselected portion of the workpiece; and
- 20 means for holding at least two separated portions of the workpiece during operation of the machine tool.

17. A device for routing a machine tool upon a workpiece comprising:
- a guide bar;
- means for securing said guide bar to the workpiece;
- 25 means for calibrating the position of the guide bar upon the workpiece;
- means for enabling the machine tool to separate the workpiece into at least two distinct portions; and
- means for securing the relative positions of the two distinct portions.

18. The device of claim 17 wherein said guide bar includes means for securing the

machine tool to said guide bar to maintain a predetermined engagement route of the machine tool upon the workpiece.

19. The device of claim 18 wherein said securing further includes a lateral guide having a first portion removably positioned upon said guide bar, and a second portion removably joined to a receptacle portion of the severing tool.

20. The device of claim 17 wherein said guide bar securing means further includes first and second clamp assemblies removably joined to preselected portions of the workpiece corresponding to a predetermined engagement route of the machine tool upon the workpiece.

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